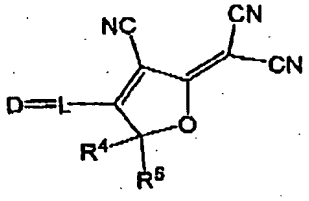
WHAT WE CLAIM IS:

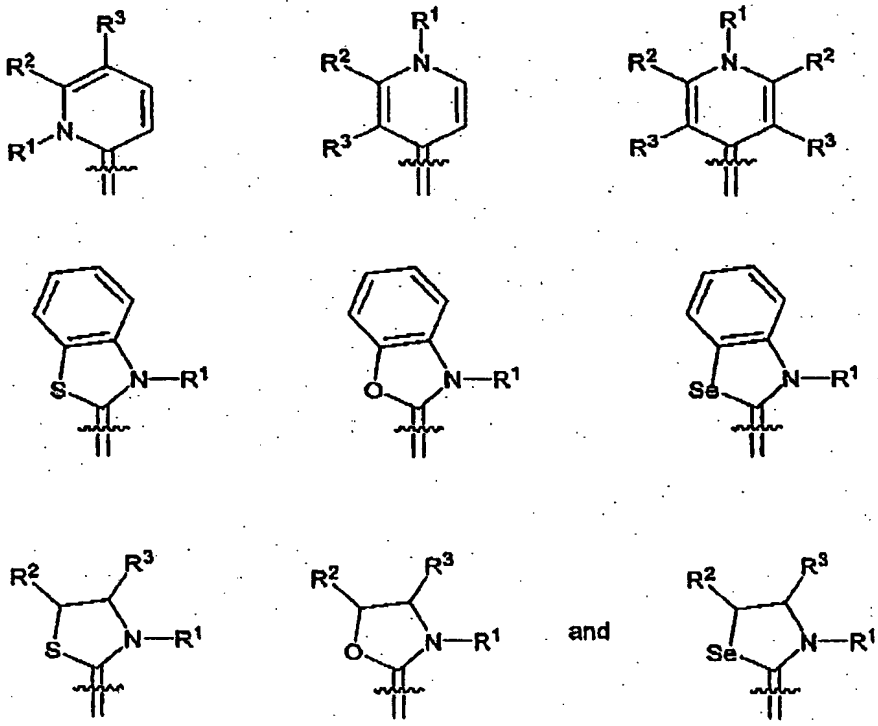
1. A compound of the general Formula I:



I

wherein:

D is selected from the group comprising:



and

and wherein:

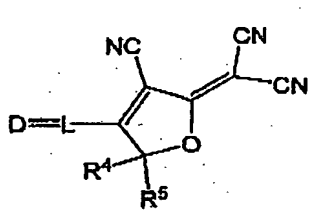
R^1 is alkyl or hydroxyalkyl;

R^2 and R^3 are H, or together with the carbon atoms to which they are attached form a 6-membered aromatic ring;

L is a linking group comprising an optionally substituted chain of 3, 5 or 7 carbon atoms which, together with the double bond linking D to L forms a conjugated polyenic chain; and

R^4 and R^5 are independently alkyl, hydroxyalkyl or *p*-C_6H_4-OAc.

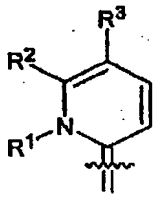
2. A compound of the general Formula I:

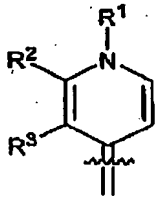


I

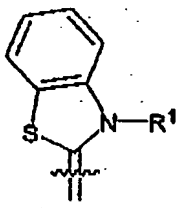
wherein:

D is selected from the group comprising:





and



and wherein:

R^1 is alkyl or hydroxyalkyl;

R^2 and R^3 are H, or together with the carbon atoms to which they are attached form a 6-membered aromatic ring;

L is a linking group comprising an optionally substituted chain of 3, 5 or 7 carbon atoms which, together with the double bond linking D to L forms a conjugated polyenic chain; and

R^4 and R^5 are independently alkyl, hydroxyalkyl or *p*-C_6H_4-OAc.

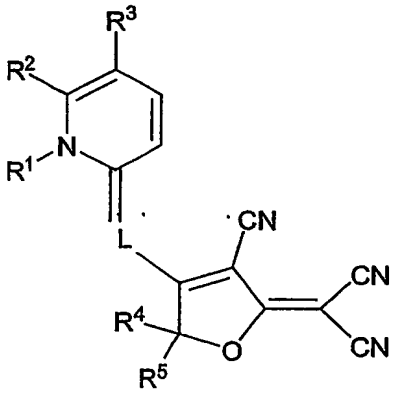
3. A compound of claim 1 or claim 2 wherein L is an optionally substituted chain of 3 or 5 carbon atoms which, together with the double bond linking D to L forms a conjugated polyenic chain.

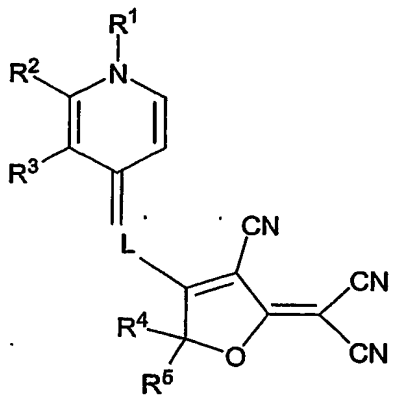
4. A compound of claim 3 wherein R^1 is dihydroxyalkyl.

5. A compound of ~~any preceding~~ claim wherein R^2 and R^3 together with the carbon atoms to which they are attached form a 6-membered aromatic ring;

6. A compound of any preceding claim wherein R^4 and R^5 are independently alkyl or hydroxyalkyl.

7. A compound according to formula I, represented by





wherein:

R^1 is CH_3, CH_2CH_2OH, $CH_2CH(OH)CH_2OH$ or alkyl chain of up to 30 carbon atoms;

R^2 and R^3 are H, or together with the carbon atoms to which they are attached form a 6-membered aromatic ring;

one of R^4 or R^5 is hydroxyalkyl; and

L is an optionally substituted chain of 5 carbon atoms which, together with the double bond linking D to L forms a conjugated polyenic chain.

8. A compound of claim 7 wherein R_1 is dihydroxyalkyl.

9. A compound selected from the group comprising:

[4{2-(*N*-Methylpyridin-4(1*H*)-ylidene)ethenyl}-3-cyano-5,5-dimethyl-2(5*H*)furanylidene}]-propanedinitrile;

[4{4-(*N*-Methylpyridin-4(1*H*)-ylidene)-1,3-butadienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene]propanedinitrile;

[4{6-(*N*-Methylpyridin-4(1*H*)-ylidene)-1,3,5-hexatrienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene]propanedinitrile;

'{4{2-[*N*-(2,3-Dihydroxypropyl)pyridine-4(1*H*)-ylidene]ethenyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4{4-[(2,3-Dihydroxypropyl)pyridin-4(1*H*)-ylidene]-1,3-butadienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

[4{2-(*N*-Methylpyridin-2(1*H*)-ylidene)ethenyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene]propanedinitrile;

[4{4-(*N*-Methylpyridin-2(1*H*)-ylidene)-1,3-butadienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene]propanedinitrile;

[4{6-(*N*-Methylpyridin-2(1*H*)-ylidene)-1,3,5-hexatrienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene]propanedinitrile;

'{4{2[*N*-(2,3-Dihydroxypropyl)pyridin-2(1*H*)-ylidene]ethenyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4{4-[*N*-(2,3-Dihydroxypropyl)pyridin-2(1*H*)-ylidene]-1,3-butadienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4{2-[*N*-(2-Hydroxyethyl)quinolin-4(1*H*)-ylidene]ethenyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4{4-[*N*-(2-Hydroxyethyl)quinolin-4(1*H*)-ylidene]-1,3-butadienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4{6-[*N*-(2-Hydroxyethyl)quinolin-4(1*H*)-ylidene]-1,3,5-hexatrienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'''{4-''{2-'{3-{2-[*N*-(2-Hydroxyethyl)quinolin-4(1*H*)-ylidene]-ethylidene}-2-chloro-1-cyclohexen-1-yl}'-*E*-ethenyl}''-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}''' propanedinitrile;

'{4{2-[*N*-Methylquinolin-2(1*H*)-ylidene]ethenyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4{4-[*N*-Methylquinolin-2(1*H*)-ylidene]-1,3-butadienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4{6-[*N*-Methylquinolin-2(1*H*)-ylidene]-1,3,5-hexatrienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4-{2-[*N*-(2-hydroxyethyl)benzothiazol-2(3*H*)-ylidene]-ethenyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4-{4-[*N*-(2-hydroxyethyl)benzothiazol-2(3*H*)-ylidene]-1,3-butadienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

'{4-{6-[*N*-(2-hydroxyethyl)benzothiazol-2(3*H*)-ylidene]-1,3,5-hexatrienyl}-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'propanedinitrile;

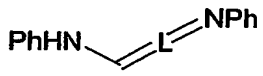
'{4-{4-[*N*-(2-hydroxyethyl)benzothiazol-2(3*H*)-ylidene]-1,3-butadienyl}-5-(4-acetoxyphenyl)-3-cyano-5-methyl-2(5*H*)-furanylidene}'propanedinitrile; and

'''{4-''{2-'{3-{2-[*N*-(2-hydroxyethyl)benzothiazol-2(3*H*)-ylidene]ethylidene}-2-chloro-1-cyclohexen-1-yl}'-*E*-ethenyl}''-3-cyano-5,5-dimethyl-2(5*H*)-furanylidene}'''propanedinitrile.

10. A method of preparing a compound of Formula I comprising:

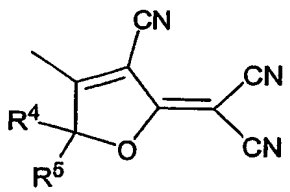
(a) reacting a compound of Formula II:

II

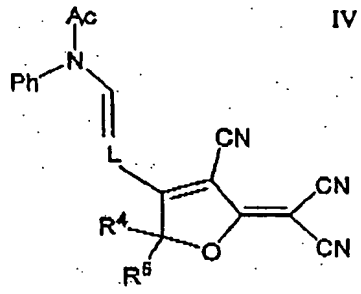


wherein L is defined in claim 1, with a compound of Formula III:

III

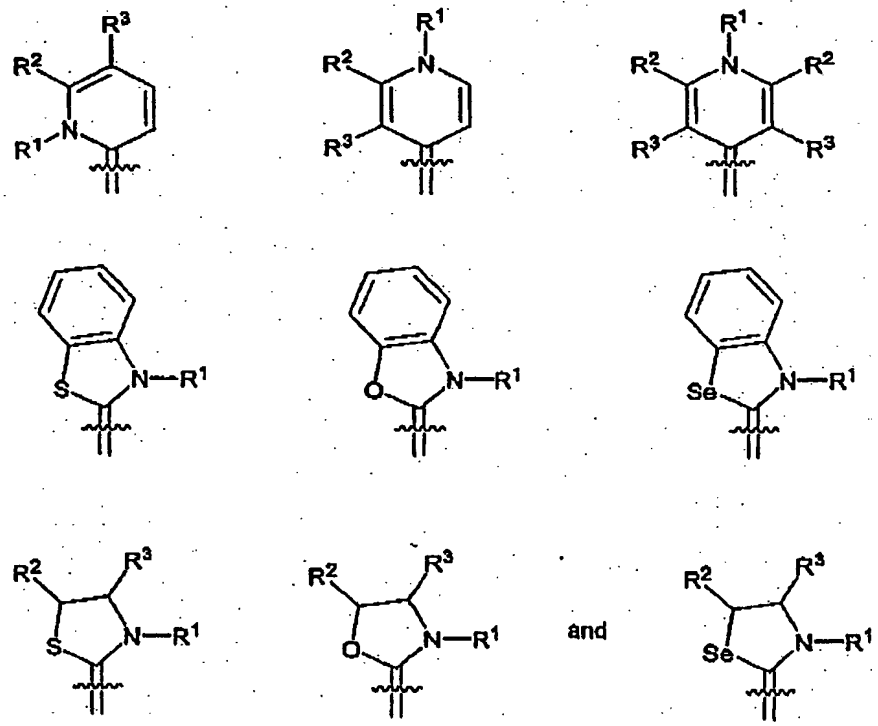


wherein R^4 and R^5 are as defined in claim 1, to form a compound of Formula IV:



IV

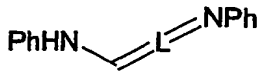
(b) reacting the compound of Formula IV from step (a) with a donor compound to form a compound of Formula I, wherein the donor compound bears a donor group selected from the group comprising:



11. A method of preparing a compound of Formula I comprising:

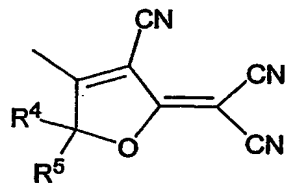
(a) reacting a compound of Formula II:

II



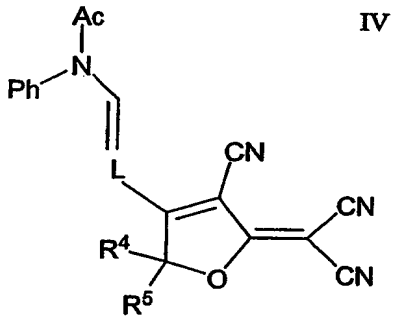
wherein L is defined in claim 1, with a compound of Formula III:

III

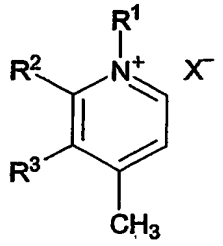


wherein R^4 and R^5 are as defined in claim 1, to form a compound of Formula IV:

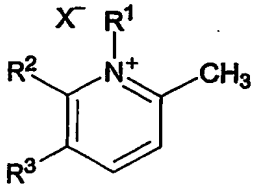
IV



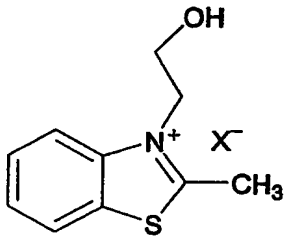
(b) reacting the compound of Formula IV from step (a) with an azinium or azolium donor derivative of Formula V, VI, or VII , where X is halogen and R^1, R^2, R^3 are defined in claim 1, to form a compound of Formula I.



V



VI



VII

12. A composite material prepared from a polymerisation mixture comprising

(c) a compound of formula I or a derivative thereof; and

(d) at least a further polymerisable material.

13. A composite material of claim 11 comprising a modified polyurethane, polycarbonate, polyamic acid polyimide, or a mixture thereof, which includes substituents derived from a compound of formula I.

14. An optoelectronic device comprising the composite material of claim 12 or claim 13.

15. A method of data transmission comprising transmitting light through a composite material of claim 12 or claim 13.